

What is claimed is:

1. An adder having as inputs a first and a second data inputs, a first and a second carry inputs, and a carry selection input, comprising:

a first XOR element for generating an XOR output of the first and the second data inputs;

a first multiplexer for selecting one of the first carry input or the first data input while the XOR output is made a selection signal;

a second multiplexer for selecting one of the second carry input or the second data input;

a third multiplexer for selecting one of the first or the second carry inputs while the carry selection input is made a selection signal; and

a second XOR element for generating an XOR output of an output of the third multiplexer and the XOR output, wherein

an output of the first multiplexer is made a first carry output,

an output of the second multiplexer is made a second carry output, and

an output of the third multiplexer is made an addition value.

2. An adder comprising plural adders each of which is recited in claim 1 and which are continuously connected to